REMARKS

Claims 1-3 are pending in this application and stand ready for further action on the merits.

Support for the Amendment to claim 1 can be found in the Abstract.

Support for new claim 3 can be found on page 9, lines 8-16.

No new matter has been added by the above-amendment.

Issues under 35 USC § 102(b)

The Examiner has rejected claims 1 and 2 under 35 USC § 102(b) as being anticipated by Kaspersen et al. (Journal of Label. Comp. and Radiopharm., 27, No. 9, 1055, 1989). Applicants respectfully traverse the rejection.

The Examiner points out that Kaspersen discloses the synthesis of mirtazapine as well as the crystallization of mirtazapine from the crude product using a methanol/water solvent mixture to achieve almost pure crystals. Based upon this disclosure, the Examiner asserts that claims 1 and 2 are anticipated.

The Examiner cites to case law, which holds that the claiming of a new use, new function or unknown property, which is ***inherently*** present in the prior art does not necessarily make the claim patentable. Based on this case law, the Examiner asserts that the

"unknown property" is the particular crystalline form with x-ray diffraction pattern and level of dryness as currently claimed.

In response to the Examiner's assertion, Applicants respectfully submit that to support an anticipation rejection based upon inherency, the Examiner must provide factual and technical grounds establishing that the inherent feature ***necessarily*** flows from the teachings of the prior art. See *Ex parte Levy* 17 USPQ2d 1461 (BOPAI 1990); see also *In re Oelrich*, 212 USPQ 323 (CCPA 1981) holding that inherency ***must flow as a necessary conclusion from the prior art, not simply a possible one***.

Applicants respectfully submit that based upon the following comments and observations, that the presently claimed anhydrous crystals are not a necessary conclusion from the teachings of Kaspersen. Specifically, the drying conditions of Kaspersen would not necessarily provide mirtazapine crystals having (i) a water content of not more than 0.5% by weight and (ii) a hygroscopic degree of not more than 0.6% by weight when the crystals are stored in the air having a relative humidity of 75% at 25°C under atmospheric pressure for 500 hours, as presently claimed.

Kaspersen teaches a purification step of [^{13}C]Org 3770 1c at page 1066, lines 4-8, as follows:

> For the final purification the product was treated twice with 100 mg of charcoal in n-hexane (containing 1% of methanol) followed by

> crystallization from methanol/water (1:1, v/v) yielding 600 mg (53%) Org 3770 as colourless crystals, m.p. 123,8-125,8 °C. No impurities were detectable on TLC, HPLC or GC.

In addition, Kaspersen teaches a purification step of [10-^{14}C]Org 3770 1d at page 1067, lines 8-13 from the bottom, as follows:

> The product was extracted with ethyl acetate, dried over Na_2SO_4, and evaporated to dryness. The crude 1d was purified by chromatography over silica gel (elution with dichloromethane/methanol 95:5, v/v) to yield 2,45 mCi (90,7 MBq;61%) of pure [10-^{14}C]Org 3770.

Based on this limited teaching for drying conditions, it is reasonable to conclude that Kaspersen dries the mirtazapine composition under conventionally used conditions which are designed to be gentle to avoid decomposition which is thought to occur at high temperatures.

Therefore, the mirtazapine hydrate has been dried under **ordinary** drying conditions, *i.e.*, at a low temperature such as 50°C to 60°C.

However, when the mirtazapine hydrate is dried at such a low temperature, anhydrous mirtazapine crystals satisfying both (i) a water content of not more than 0.5% by weight and (ii) a hygroscopic degree of not more than 0.6% by weight cannot be obtained.

To the contrary, the present inventors have found through tireless efforts and supreme ingenuity that there can be successfully obtained anhydrous mirtazapine crystals having (i) a water content of not more than 0.5% by weight and (ii) a hygroscopic degree of not more than 0.6% by weight when the crystals are stored in the air having a relative humidity of 75% at 25°C under atmospheric pressure for 500 hours, because the mirtazapine hydrate is dried under **special** drying conditions.

The drying under the **special** drying conditions is not intended to mean **ordinary** drying. More specifically, the drying under the **special** drying conditions means that the mirtazapine hydrate is dried under **very severe drying conditions**, for instance, at a very high temperature of 90° to 95°C under a low pressure of 1330 to 1862 Pa as is disclosed in Example 7 of the present specification.

In fact, according to Example 7, anhydrous mirtazapine crystals having (i) a water content of not more than 0.5% by weight and (ii) a hygroscopic degree of not more than 0.6% by weight have been obtained.

On the other hand, according to Example 8 of the present specification, since **ordinary** drying conditions such as drying temperature of 50° to 60°C and reduced pressure of 4 to 5.3 kPa, *i.e.* 4000 to 5300 Pa have been employed, crystals of a hydrate having a relatively higher water content of 3.5% are obtained, but anhydrous mirtazapine crystals having (i) a water content of not

more than 0.5% by weight and (ii) a hygroscopic degree of not more than 0.6% by weight are not obtained.

This fact proves that the above-mentioned **special** drying conditions for drying the mirtazapine hydrate provide the anhydrous mirtazapine crystals having (i) a water content of not more than 0.5% by weight and (ii) a hygroscopic degree of not more than 0.6% by weight.

Accordingly, there is evidence in the present specification that under ordinary drying conditions, such as those described by Kaspersen would not necessarily provide mirtazapine crystals having (i) a water content of not more than 0.5% by weight and (ii) a hygroscopic degree of not more than 0.6% by weight when the crystals are stored in the air having a relative humidity of 75% at 25°C under atmospheric pressure for 500 hours, as presently claimed. Since there is no reason why the **special** drying conditions of the present invention can be expected from Kaspersen, a *prima facie* case of anticipation based on an inherent feature cannot be sustained. As such, withdrawal of the rejection is respectfully requested.

Furthermore, Kaspersen disclose at page 1066, lines 3-8 that the compound 1c is crystallized from methanol/water as colorless crystals. However, the compound 1c is **not** an **unlabeled** compound but a **labeled** compound, and the mirtazapine of the present invention is an **unlabeled** compound.

Therefore, the mirtazapine of the present invention should be apparently distinguished from the compound 1c.

Information Disclosure Statement

Applicants respectfully request that the Examiner returns an initialed copy of the PTO-1449 forms, which were enclosed with the two IDS's that were timely filed on November 23, 2004 and March 4, 2005. Both of these forms have been imaged onto PAIR as evidenced by the attached copies obtained from PAIR.

Priority Documents

The Examiner is respectfully requested to confirm in the next communication that certified copies of the priority documents have been received in the parent application, Serial No. 09/697,329.

Conclusion

In view of the above amendments and comments, Applicants respectfully submit that the claims are in condition for allowance. A Notice to such effect is earnestly solicited.

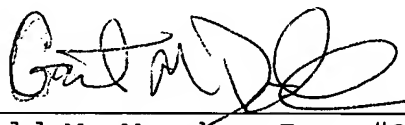
Pursuant to the provisions of 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a three (3) month extension of time for filing a response in connection with the present application. The required fee of $1,020.00 is attached hereto.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact **Garth M. Dahlen, Ph.D., Esq.** (Reg. No. 43,575) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 

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Attachment(s): Two PTO-1449 forms obtained from PAIR that were originally filed on November 23, 2004 and March 4, 2005, respectively.